Correspondence

TO THE EDITOR, British Journal of Venereal Diseases

Risk of ectopic pregnancy after salpingitis

Sir,

Our surveillance of the complications of sexually transmitted diseases in Canada uses primarily data on discharges from hospital, which are collected uniformly by Statistics Canada from all hospitals in the ten provinces. This is a reliable source of information on the incidence of ectopic pregnancies, but is deficient in respect of the two other complications of current interest to us, namely infertility and salpingitis. For the latter condition, we can directly measure only the (presumably more severe) acute and chronic cases in patients admitted to hospital.

Using historical data on ectopic pregnancy and applying a priori estimates obtained from published reports, we have been able to estimate the incidence of one risk factor (salpingitis) in a segment of the Canadian population.

In the years 1971-4 there were 9986 admissions to hospital for which ectopic pregnancy was the primary diagnosis; an incidence of 52 per 100 000 women aged 15-44. This can be regarded as a complete count of ectopic pregnancies terminating in Canadian hospitals. A more accurate way of estimating the risk of ectopic pregnancy is as a proportion of all reported pregnancies (live births, stillbirths, legal abortions, and ectopic pregnancies). This gives an incidence of 6.2 per 1000 pregnancies for 1971-4. In 1980 there were 4123 ectopic pregnancies, an incidence of 9.3 per 1000 pregnancies. What can these figures tell us about salpingitis?

Weström et al found that half the women who had ectopic pregnancies in Lund, Sweden during 1970-4 had evidence of prior salpingitis and that the risk of ectopic pregnancy after salpingitis was seven times greater than in women who had never had salpingitis.1 If we apply these estimates to our figures for ectopic pregnancies during 1971-4, we can show that the underlying risk of ectopic pregnancy in the absence of salpingitis was 3.5 per 1000 pregnancies; one in eight (12.5%) women becoming pregnant had had salpingitis; and the population attributable risk proportion2 of ectopic pregnancy due to salpingitis was 0.43. That is, 43% of ectopic pregnancies can be attributed to previous salpingitis.

Ory et al3 and Rubin et al4 suggested that the increasing incidence of ectopic pregnancies in the United States in the 1970s resulted from an increasing incidence of salpingitis. Assume this to be true of Canada. That is, assume that the increased incidence of ectopic pregnancies was caused by the epidemic of sexually transmitted diseases and its consequent pelvic inflammatory disease. On the further assumption that other factors causing ectopic pregnancy have remained the same, we can use the simple attributable risk model to derive the following for 1980: 3127 (76%) of the 4123 cases of ectopic pregnancy occurred in women with fallopian tubes damaged by salpingitis; 31% of women becoming pregnant in 1980 had had salpingitis; and the population attributable risk proportion of ectopic pregnancy due to salpingitis was 0.65.

The most interesting result of this modelling is that if salpingitis (sexually transmitted or not) were responsible for the increasing incidence of ectopic pregnancy in Canada, the incidence of damage to fallopian tubes induced by salpingitis in Canadian women at risk of pregnancy must have risen from 12.5% to 31% in the decade 1971-80. Because estimations of risk in Lund cannot be generalised to Canada, however, further data must be examined to test the hypothesis that salpingitis was a factor in the increased incidence of ectopic pregnancy. A retrospective study to estimate the incidence of salpingitis in a Canadian population is planned to test this hypothesis.

Yours faithfully,

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References


